CENTER FOR TOXICOLOGY AND ENVIRONMENTAL HEALTH, LLC

CTEH® Project #40442
West Fertilizer Plant Explosion
Summary of Air Monitoring Results
May 3, 2013 10:00

This data report discusses real-time air monitoring data collected between 5/2/2013 07:00 and 5/3/2013 7:00 in support of remediation operations conducted near the West Fertilizer Plant Explosion in West, TX.

Real-time air monitoring was conducted for VOCs, ammonia (NH_3), and particulate matter (PM_{10}), using remote-telemeting RAESystems® AreaRAEs and hand-held instruments such as RAESystems® MultiRAE and Gastec colorimetric® detector tubes.

Tables 1 and 2 (below) display data summaries for hand-held and AreaRAE instruments, respectively. Site maps and charts are available as attachments.

Table 1: Hand-held Real-time Air Monitoring Summary[1]
May 02, 2013 07:00 – May 03, 2013 07:00

Analyte	Instrument	Number of Readings	Number of Detections	Average of Detections	Range of Detections
Community					
NH3	Gastec 3L	1	0	NA	< 0.2 ppm
	MultiRAE	1	0	NA	< 1 ppm
VOC	MulitiRAE	1	0	NA	< 0.1 ppm
Work Area					
NH3	Gastec 3L	3	0	NA	< 0.2 ppm
	MultiRAE	2	0	NA	< 1 ppm
PM10	AM510	1	1	0.025 mg/m^3	0.025 mg/m^3
VOC	MultiRAE	3	0	NA	< 0.1 ppm

[1]*Please note: The data displayed here has not undergone complete QA/QC analysis and is presented in a preliminary format.*
PPM = Parts Per Million

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Table 2
Stationary AreaRAE Monitoring Stations Data Logged
5/2/2013 07:00 to 05/03/2013 07:00

Unit	Analyte	Count of Readings	Count of Detections	Average of Detections	Max Detection
AR13	NH3	5720	0	NA	< 1 ppm
	VOC	5720	0	NA	< 0.1 ppm
AR14	NH3	5421	0	NA	< 1 ppm
	VOC	5421	50	2.8 ppm	6.3 ppm
AR16 Mobile Down Wind Unit	NH3	5686	0	NA	< 1 ppm
	VOC	5686	156	0.1 ppm	0.1 ppm
AR17	NH3	5667	0	NA	< 1 ppm
	VOC	5667	0	NA	< 0.1 ppm
AR18	NH3	5708	0	NA	< 1 ppm
	VOC	5708	0	NA	< 0.1 ppm

[1]*The data in this table may include electronic drift. Drift is defined as any interference in the electrochemical sensor's ability to accurately report the concentration of a chemical in the atmosphere. Humidity and temperature changes throughout the monitoring period are typical sources of drift. Additionally, the data has not undergone complete QAQC as of this time.*

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Appendix

Air Monitoring Zone Classifications[1]
May 03, 2013

Project: 40442
Client: OMI
City: West, TX
County: McLennan

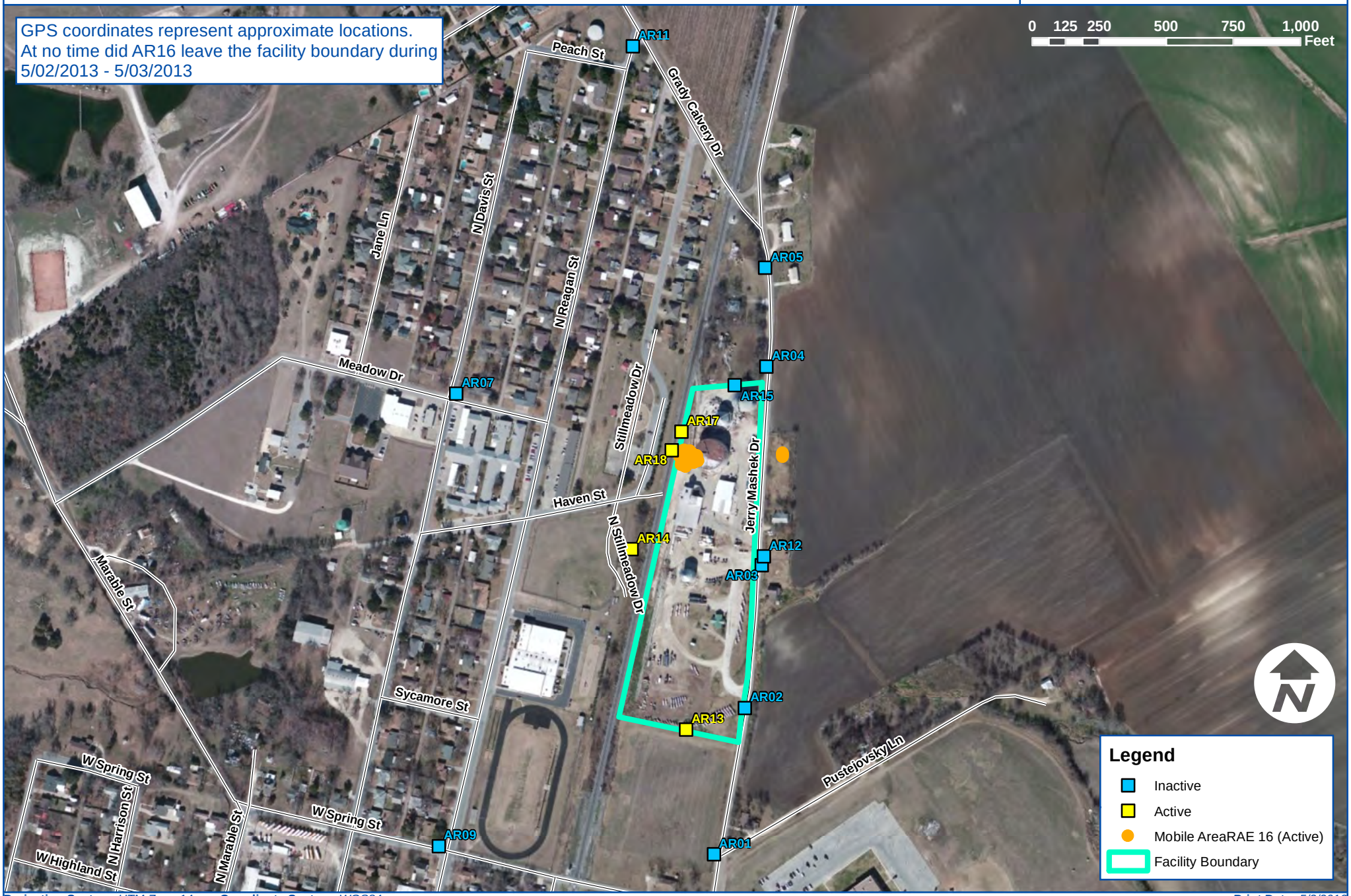
[1]All monitoring performed outside of the Work Area boundary and the Rail Road right of way is considered Community Monitoring.

Projection System: *UTM Zone 14* **Coordinate System:** *WGS84* **Print Date:** *5/3/2013*

AreaRAE Monitoring Station Locations 5/03/2013

Project: 40442
Client: OMI
City: West, TX
County: McLennan

GPS coordinates represent approximate locations.
At no time did AR16 leave the facility boundary during 5/02/2013 - 5/03/2013



Projection System: *UTM Zone 14* **Coordinate System:** *WGS84* **Print Date:** *5/3/2013*

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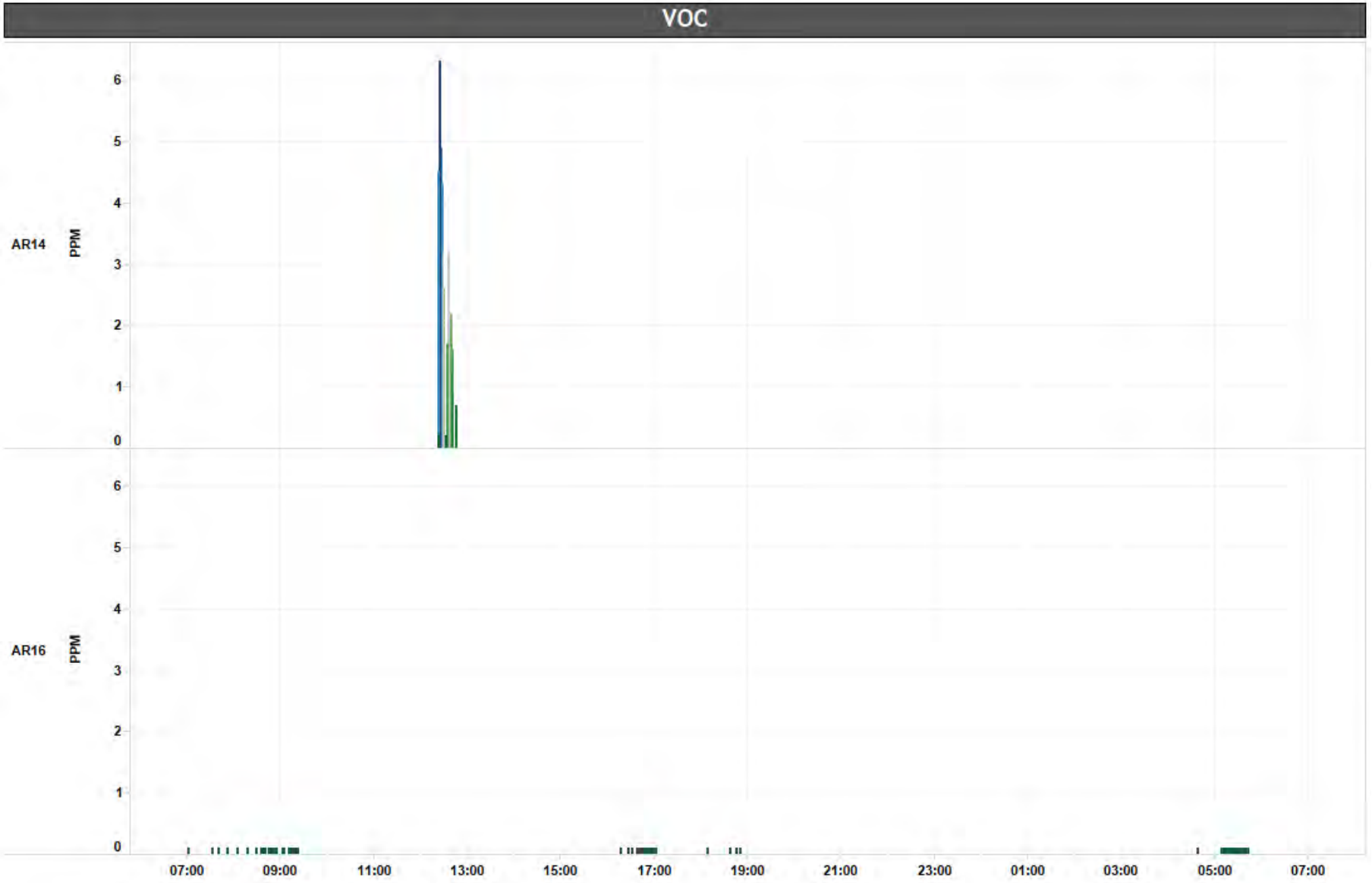
AreaRAE Detections
5/02/2013 07:00 to 5/03/2013 07:00



Manually Logged Ammonia Real-Time Readings 5/02/2013 07:00 to 5/03/2013 07:00

Project: 40442
Client: OMI
City: West, TX
County: McLennan

Projection System: *UTM Zone 14* Coordinate System: *WGS84* Print Date: *5/3/2013*

Manually Logged PM10 Real-Time Readings 5/02/2013 07:00 to 5/03/2013 07:00

Project: 40442
Client: OMI
City: West, TX
County: McLennan

Projection System: *UTM Zone 14* Coordinate System: *WGS84* Print Date: *5/3/2013*

Manually Logged VOC Real-Time Readings 5/02/2013 07:00 to 5/03/2013 07:00

Project: 40442
Client: OMI
City: West, TX
County: McLennan

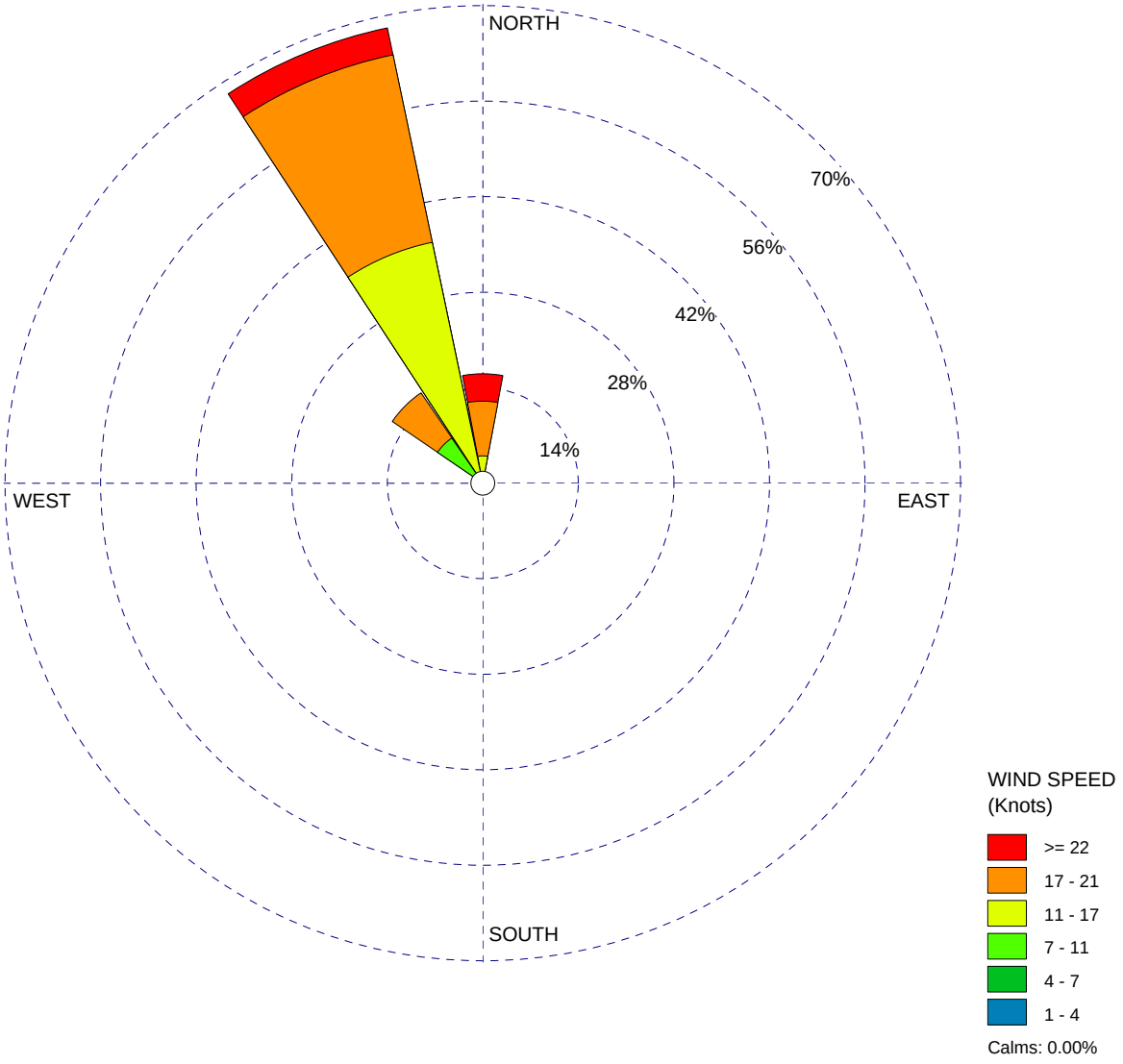
Projection System: *UTM Zone 14* Coordinate System: *WGS84* Print Date: *5/3/2013*

WIND ROSE PLOT:

Wind Speed and Direction 5/2/2013 07:00 to 5/3/2013 07:00
West, TX

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:

Met Station: KACT Waco, TX

COMPANY NAME:

CTEH

MODELER:

Lloyd Long

CALM WINDS:

0.00%

AVG. WIND SPEED:

16.76 Knots

PROJECT NO.:

40442-OMI